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10/020,331	12/12/2001	Michael T. Milbocker	PRAXIS-5	9980

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Suite 2101  
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EXAMINER
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FUBARA, BLESSING M

ART UNIT	PAPER NUMBER
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1618

NOTIFICATION DATE	DELIVERY MODE
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04/03/2009

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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### **DETAILED ACTION**

The examiner acknowledges receipt of request for extension of time, amendment and remarks filed 12/10/08. Claims 1, 9-11, 51 and 52 are amended. Claims 2, 3, 5, 6, 12-14, 17-30, 40-42 and 44-48 are canceled. New claim 53 is added. Claims 1, 7-11 and 49-53 are pending.

#### ***Response to Arguments***

1. **Previous rejections that are not reiterated herein are withdrawn.**

#### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 49 and 50 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

4. Claim 49 depends on canceled claim 40 and claim 50 depends on canceled claim 17.

These claims are of indeterminate scope since the claims upon which they depend are canceled.

Therefore, no art rejections are applied to claims 49 and 50.

#### ***Claim Rejections - 35 USC § 102***

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5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 7-11, 51-53 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Wood (US 4,241,537).

7. Claim 1 has been amended to incorporate the limitations of claims 2 (for trifunctional polyol), 6 (polyisocyanate is selected from toluene diisocyanate and isophorone diisocyanate), and claim 10. Claim 1 is also amended to recite molecular weight of the alkylene oxide polymers. Part of the limitation of claim 9 is recaptured in new claim 53. Canceled claims 2, 6 and 10 were all previously rejected. Claim 9 was also previously rejected. The rejection is modified to capture the amendment to the claims.

8. Wood discloses a composition comprising isocyanate terminated polyurethane prepolymer (abstract; column 2, lines 61-65) that comprises at least three functional groups (column 5, lines 37-40); the mixture forms a gel (column 5, lines 10 and 11); the polymer contains ethylene oxide (EO) units and propylene oxide (PO) units with specific requirement that the PO unit be present at less than 50% (column 6, lines 37-39); preferably the hydrophobic PO is at about 30% and the EO is greater than about 70% preferably (column 7, lines 27, 28, 35-37); the isocyanates are present as toluene-2,4-diisocyanate and toluene-2,6-diisocyanate at a ratio of 80:20 (column 8, lines 15, 16; column 10, lines 57 and 58); isophorone diisocyanate is also present or employed (column 8, line 56); the polymer formed between PO and EO in the presence of the isocyanates is block, random or both (column 7, line 15). The ratio of the EO to

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PO, the number of functionalities of at least 3 as stated above, the amount of water which is present at 50-95% (column 3, lines 39-41) meet the limitations of claims 1 and 51. Toluene-2,6-diisocyanate meets claims 7, 11; isophorone diisocyanate meets claims 8, 10 and 11; isocyanates present as toluene-2,4-diisocyanate and toluene-2,6-diisocyanate at a ratio of 80:20 as described above meet claim 9. The concentration of the isocyanate is low (column 6, lines 6-14) resulting in minimal free isocyanate. Wood contemplates copolymerizing EO with PO in the presence of polyols such as trimethylolpropane (column 7, lines 55-58). The silence of Wood on the presence of free isocyanate in the composition indicates composition that is free of the NCO or minimal amount present since the starting amount is low at 2 meq/g and claim 53 is thus met. Wood does not add catalyst to the composition so that the presence of low molecular weight polyisocyanate meets claim 52 since the functionality is at least 3. Wood teaches that the number average molecular weight of the pre-polymer is at least 3000 (column 5, lines 51-53), which intersects points within the recited range meeting the molecular weight requirement. Therefore, Wood anticipates the claims. In the alternate, the silence of Wood on the presence of free isocyanate in the composition indicates the composition is free of NCO or is present in minimal amounts. Therefore, taking the general teaching of the reference, it would be prima facie obvious that the amount of the isocyanate remaining is very minimal.

#### ***Response to Arguments***

9. Applicant's arguments filed 12/10/08 have been fully considered but they are not persuasive.

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10. Applicant argues that Wood does not teach that the molecular weight of the diol be between 800 and 5,000. The examiner disagrees because Wood teaches the molecular weight of the pre-polymer to be at 3000 meeting a point within the recited range of between 800 and 5000.

11. Applicant also argues that Wood is directed to plant grow and that the claimed composition would render the material of Wood inoperable. The examiner disagrees because Wood's composition containing the polymer, the polyisocyanate and the isocyanate ratios, the %amount of the PO is the same as the claimed composition. Use of the composition as a soil for plants/seeds is an intended use. The composition of Wood also forms gel in situ (see column 5, lines 8-10 and same compositions must be capable of the same intended use.

12. Applicant further argues that the linkage in Wood is an ether linkage and not the urethane linkage claimed. The examiner disagrees. The goal of Wood is in situ formation of polyurethane hydrogel (see the title; column 2, lines 61-65). Furthermore the structure in column 6, lines 45-60 contains urethane linkages and not ether linkages.

No claim is allowed.

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BLESSING M. FUBARA whose telephone number is (571)272-0594. The examiner can normally be reached on 7 a.m. to 5:30 p.m. (Monday to Thursday).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Hartley can be reached on (571) 272-0616. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Michael G. Hartley/  
Supervisory Patent Examiner, Art Unit 1618

/Blessing M. Fubara/  
Examiner, Art Unit 1618